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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,275	12/16/2003	Tilo Dittrich	DT-6692	6164
30377	7590	05/02/2005	EXAMINER	
DAVID TOREN, ESQ. SIDLEY, AUSTIN, BROWN & WOOD, LLP 787 SEVENTH AVENUE NEW YORK, NY 10019-6018			DURAND, PAUL R	
			ART UNIT	PAPER NUMBER
			3721	

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/737,275	Applicant(s) DITTRICH ET AL.	
	Examiner Paul Durand	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-9 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, the claim is directed toward a pin shaped electrode, while claim 2 does not claim the electrode. There is lack of antecedent basis for the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heeb et al (EP 1 027 962) in view of Mitchell (US 3,748,770).

Heeb discloses the invention substantially as claimed including a displaceable support 7, which contains electrodes 5 and 6 which are displaceable with the support between a first and second position, where the electrode contacts the foil cartridge (see Figs. 1 and 2). What Heeb does not disclose is the use of an annular electrode attached to the support. However, Mitchell teaches that it is old and well known in the

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art to provide a support 10, insulator 30, arranged in the support and having a conical section which opens toward the direction of channel 22, pin shaped electrode 31, having a tip, an annular electrode 32, supported in the support, surrounding the insulator for the purpose of igniting the primer of a combustible cartridge (see Fig.1 and C3,L14 – C3,L27). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the invention of Heeb with the electrode and insulator arrangement as taught by Mitchell for the purpose of igniting the primer of a combustible cartridge.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heeb and Mitchell in view of Dingman (US 3,219,866).

The modified invention of Heeb discloses the invention substantially as applied to claim 1 above except for the pin electrode having a conical shaped section. However, Dingman teaches that it is old and well known in the art to provide a pin shape electrode 27, with a conical shaped section 32, which opens toward an ignition channel for the purpose of efficiently igniting a combustible material (see Figs.1,4 and C1,L69 – C4,L3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the modified invention of Heeb with the electrode arrangement as taught by Dingman for the purpose of efficiently igniting a combustible material.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heeb and Mitchell in view of Giardini (US 4,203,393)

In regard to claim 5, the modified invention of Heeb discloses the invention substantially as applied to claim 1 above except for a sleeve formed inside the insulator. However, Giardini teaches that it is old and well known in the art to provide a sleeve in the form of discharge chamber 34, which is formed partially inside insulator 33 for the purpose of efficiently propagating a spark (see Fig 2 and C4,L67 – C5,L3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the modified invention of Ehmig with the discharge means as taught by Giardini for the purpose of efficiently propagating a spark.

In regard to claim 6, while the modified invention of Ehmig does not disclose the use of the sleeve being manufactured from ceramic, it would have been obvious to one having ordinary skill in the art at the time the invention as made to have manufacture the sleeve from ceramic material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of it's suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

7. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heeb and Mitchell in view of Suckewer (US 6,321,733).

In regard to claims 7 and 8, the modified invention of Heeb discloses the invention substantially as applied to claim 1 above except for the annular insulator being arranged as a cover. However, Giardini teaches that it is old and well known in the art to provide an annular electrode 20 formed as a cover, with a side bulge (no number given) and secured on a support 90 with threads 19 for the purpose of attaching an ignition device to an object (see Figs 2,3,5 and C10,L34-65). Therefore, it would have

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been obvious to one having ordinary skill in the art at the time the invention was made to have provided the modified invention of Heeb with the ignition system of Suckewer for the purpose of attaching an ignition device to an object.

In regard to claim 9, while the modified invention of Heeb and Suckewer does not disclose axial play between the threads, the examiner takes Official Notice that it is inherent in threaded connections to have axial play between mating threads as a means of allowing attachment to an object and to adjust the required tension between the threads during tightening. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have specifically provided the modified invention of Heeb with axial play in the threads for the purpose of adjusting the required tension between the threads during tightening.

Allowable Subject Matter

8. Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Durand whose telephone number is 571-272-4459. The examiner can normally be reached on 0730-1800, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Durand
April 28, 2005



Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700